PROMOTER OWNERSHIP AND CORPORATE LEVERAGE: EVIDENCE FROM INDIAN FIRMS

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Abstract

A higher level of debt may help in aligning the interests of managers and shareholders; however, managers may underestimate the resulting costs of bankruptcy. Moreover, notwithstanding the tax and other benefits of debt, literature shows that firms may have more debt in their capital structure than is appropriate. A higher level of leverage becomes detrimental by increasing the chances of financial distress and, consequently, the chances of bankruptcy. This study investigated relationships between changes in promoter ownership and changes in leverage by taking a sample of 322 Indian service and manufacturing firms from Top 500 Companies listed on the Bombay Stock Exchange (BSE) for a period of five years (from 2010-2014). The results indicate that changes in promoter ownership play a role in lowering the leverage of Indian firms and, consequently, reducing the chances of bankruptcy. The findings of this study also indicate that changes in promoter ownership have more effect on the leverage of Indian service firms as compared to manufacturing firms. This study contributes to the literature on the factors that affect the leverage of the firm. The findings may be useful for financial managers, investors, financial management consultants, and other stakeholders.

Keywords: Promoter Ownership, Financial Leverage, Debt Leverage, Firm Size, Sales Growth, Net Profit Margin

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1 Introduction

One of the most important challenges facing almost every firm is the potential of bankruptcy. Although studies have been conducted on firm leverage since Modigliani and Miller (1958) developed the theory of capital structure, the issue of optimality of capital structure has been debated for many years and it is still one of the unsolved issues in the corporate finance literature. Many theoretical studies and much empirical research have addressed this issue, but there is not yet a fully supported and unanimously accepted theory concerning the optimal capital structure (Morri and Beretta, 2008). Firm leverage is one of the most important factors that can cause bankruptcy; therefore, it is important to determine the factors that reduce the risk associated with high leverage. This study examines the relationship between promoter ownership and corporate leverage of Indian manufacturing and service firms measured by financial leverage and debt leverage.

The definition of promoter ownership, in the context of this study, is concentrated firm ownership by family members, relatives, and in some case by friends. Thus, the promoter and his/her associates (i.e., immediate family members, relatives, and friends) are owners of an entity with controlling stakes. It is also notable that the ownership of these family firms is frequently associated with pyramiding, cross holding, and family trusts. Moreover, Kumar and Singh (2013) defined promoters as a group of persons who are involved in the incorporation and organization of a corporation. Non-promoter shareholders include banks, financial institutions, and mutual fund companies (Chakraborthy et al., 2008).

Since a majority of the promoters belong to the same families, relatives, and in some cases, friends, the agency problem under the governance of promoters is low (Schulze et al., 2003); therefore, it is expected that corporate governance by promoters and their associates reduces the leverage of Indian firms. The basic foundation of this study relies on the agency theory of Jensen and Meckling (1976). Agency theory focuses on the function of the board and serves as the basic foundation of the structure of the board of directors (Fama and Jensen, 1983; Hillman and Dalziel, 2003). According to agency theory, agency conflict (i.e., conflict between principal and agent) takes place in corporations because managers may not work in the best interests of shareholders to make 'corporate assets' productive and to maximize shareholders' wealth.

A higher level of debt may help in aligning the interests of managers and shareholders, however, managers may underestimate the resulting costs of bankruptcy (Gleason et al., 2000). Moreover, literature shows that firms may have more debt in their capital structure than is appropriate (Harris and Raviv, 1991). Thus, these factors indicate that firms may have more debt in their capital structure than is appropriate relative to the optimal amount, and this can have an adverse effect by increasing exposure to financial distress and by increasing volatility in share price of the individual firm which in turn has a negative impact on the wealth of shareholders (Aydemir, Gallmeyer, and Hollifield, 2007; Jambawo, 2014). Therefore, an optimal capital structure is required because it maximizes a firm's performance, which in turn reduces the chances of bankruptcy. The findings of Danis, Rettl, and Whited (2014) showed that at times when firms are at or close to their optimal level of leverage, the correlation between profitability and leverage is positive. The firm's optimal capital structure depends on the trade-off between the chances of bankruptcy and the tax benefits from firm leverage. Studies also showed that firms prefer issuing equity rather than debt when their stock prices are high (Graham and Harvey, 2001; Olokoyo, 2013, p. 359).

It is commonly agreed that the board of directors is formed by the majority shareholders (i.e., shareholders who own at least 51% of the equity of the firm) who control the corporation by formulating new policies and by amending existing corporate policies that impact the operations of the firm (Owens, 2010). Since a majority of the shares in the hands of promoters belongs to family members and relatives, the board of directors formed by promoters can function better to reduce the risk of leverage by reducing inappropriate levels of debt and, consequently, can reduce the chances of bankruptcy. This leads to the following research question:

1.1 Do changes in promoter ownership affect leverage of Indian firms?

Although some research has been conducted on promoter ownership and firm value (see Kumar and Singh, 2013), very few published studies were found that show the relationship between promoter ownership and leverage of the firm. Therefore, the present study tests the relationship between promoter ownership and leverage of Indian manufacturing and service firms. This research study proposes that promoter ownership has a strong influence on the reduction of inappropriate levels of debt because family members and their relatives generally control the board of directors formed by promoters. These family members and relatives expect to have an optimal capital structure of the firm by playing a better stewardship role to control the debt/liabilities of the firm. Thus, this study adds empirical substance to existing theory.

The organization of the remainder of the paper is as follows. Section two examines previous literature and develops hypotheses. Section three describes the data and methodology used to investigate the research question. Section four discusses and analyzes the empirical results. Section five concludes and considers the implications of the findings.

2 Literature review

La Porta et al. (1999) showed that concentrated ownership has become the most common form of ownership in most of the countries in the world. Indeed, family control through promoter ownership is the most common in India (Chakraborthy et al., 2008). Promoter ownership has a major impact on corporations in terms of controlling leverage because promoters have considerable power to make strategic decisions (Kumar and Singh, 2013). However, too much power in the hands of promoters and their associates may become detrimental because it enables them to pursue their own interests rather than corporate interests which leads to an agency problem. The power to pursue their own personal interests comes from voting rights and control over management which enables promoters and their associates to pursue their own interests by formulating corporate policies that may have a negative impact on the firm.

Firms use a mix of debt and equity in order to minimize the cost of capital (Modigliani and Miller, 1958) and to reduce the chances of bankruptcy. In family controlled firms, it is common to use internal sources of equity from family, friends (Gill *et al.,* 2012) and retained earnings. Myers (1984) referred to this as a "pecking order" where firms use internally generated funds before they look for external financing. Therefore, the capital structure of family controlled firms differs from that of non-family controlled publically traded firms.

Under the control of promoter ownership, family members, relatives, and friends form the board of directors. Lipton and Lorsch (1992) reported that there is a significant relationship between board size and capital structure. It is also possible that the head of the family acts as the CEO and director of the board. CEO duality (the CEO performing a concurrent role as chairman of the board) influences the financing decisions of the firm. Fama and Jensen (1983) claimed that if the CEO controls the board, this implies or signals an absence of separation of decision management and decision control. This can lead to higher leverage. Alba et al., (1998) used data from Thailand and found that ownership concentration is positively linked with leverage. The injection of capital from family members, relatives, and friends, however, can lead to lower the leverage.

According to Yermack (1996) and Lipton and Lorsch (1992), smaller boards of directors are more effective in the decision-making process than larger boards of directors. Kyereboah-Coleman (2007) also argued that small board sizes promote effective

communication and decision-making. Jensen (1993) also indicated that a lack of independent leadership creates difficulty for boards to respond to failure in top management. Fama and Jensen (1983) also argued that concentration of decision management and decision control in one individual hinders boards' effectiveness in monitoring top management. Empirical studies on corporate governance and firm leverage are as follows:

Wen *et al.,* (2002) found that board composition is negatively linked with leverage of firms in China.

Du and Dai (2005) used data of East Asian firms from 1994-96 and found that controlling owners with little shareholding choose higher debt.

Abor (2007) examined the relationship between corporate governance and capital structure decisions by taking a sample of 22 firms listed on the Ghana Stock Exchange (GSE) during the six-year period (1998-2003). Abor found that capital structure is positively associated with board size, board composition, and CEO duality.

Antoniou *et al.,* (2008) conducted a study to investigate how firms operating in capital market-oriented economies (the U.K. and the U.S.) and bank-oriented economies (France, Germany, and Japan) determine their capital structure. They found that corporate governance practices and exposure to capital markets heavily influence the capital structure of a firm.

Bodaghi and Ahmadpour (2010) collected data from 50 Iranian firms listed on the Tehran Stock Exchange to test the relationship between corporate governance and capital structure. They found a negative relationship between board size and debt to equity ratio. Authors also found that CEO duality does not significantly influence corporate financing behavior.

Saad (2010), by taking a sample of 126 Malaysian publically listed companies found i) a negative relationship between CEO duality and capital structure, and ii) positive relationships between board size and capital structure.

Rehman *et al.,* (2010) investigated the relationship between corporate governance and the capital structure of 19 randomly selected banks of Pakistan from 2005-2006. They found a positive relationship between board size and capital structure.

Vakilifard *et al.,* (2011) used data from the Tehran Stock Exchange (TSE) in Iran over the over the period 2005–2010. They found a positive relationship between CEO duality and leverage, and a negative relationship between board size and leverage.

Gill *et al.,* (2012) sampled small business owners from India and found that small business growth and family involvement positively influence the capital structure of small business firms.

Jiraporn, Kim, Kim, and Kitsabunnarat (2012) using a sample of 7,557 firms reported by the Institutional Shareholder Services (ISS) from 2001 to 2004 found that firms with poor governance are significantly more leveraged. The authors also showed that poor governance quality likely brings about, and does not merely reflect, higher leverage.

Strebulaev and Yang (2013) using a sample of American firms found that family firms are more likely to be zero-levered. This finding suggest that promoter ownership reduces leverage of the firm because majority of the shareholders in promoter ownership belong to the same family and relatives.

Chang, Chou, and Huang (2014) took a sample of 4,297 from COMPUSTAT and found that over-leveraged firms with weak corporate governance adjust capital structure slowly to reduce high levels of debt.

In summary, literature review shows that corporate governance influences the leverage of firms. Hence, we formulate the following hypotheses:

H1) Promoter ownership reduces financial leverage of the Indian firms.

H2) Promoter ownership reduces debt leverage of the Indian firms.

3 Methods

The study applied a co-relational and non-experimental research design. This process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships.

3.1 Measurement

To remain consistent with previous studies, measures were adopted from Gill, Biger, and Mand's (2013) study.

Table 1 shows the measurements of the dependent, independent, and control variables that were used in regression analysis.

3.2 Empirical model

Change in promoter ownership ($\Delta PO_{i,t}$) causes changes in corporate leverage because number of votes in the hands of promoters change which leads to changes in corporate control. $\Delta PO_{i,t}$ in the model is considered as a main explanatory variable that changes corporate leverage. We consider all other variables as individual control variables. Hence we estimate the following model:

$$\Delta Y_{it} = \alpha_0 + \alpha_1.\Delta PO_{i,t} + \sum \Delta X_{ijt} + \varepsilon_{it} \qquad (1)$$

In the model, i refers to individual firm, ΔY_{it} is change in the leverage of company i during time period t, and ΔX_{ijt} represents changes in individual control variables (j) corresponding to firm i during time period t. ε_{it} is a normally distributed disturbance term. In the estimated model, α_1 measures the magnitude at which $\Delta PO_{i,t}$ reduces corporate leverage. We extend this model by considering a set of control variables (ΔSG_{it}, ΔFS_{it}, ΔNPM_{it}, and $INDUSTRY$). We estimate the

coefficients of variables of model by applying ordinary least squares (OLS) method because it is better for multiple regression analysis.

Table 1. Proxy variables and their measurements

Dependent Variables	Measurement
Change in Financial Leverage (*ΔFL_{i,t}*)	(Current year *LTDTAR* - Previous year *LTDTAR*)/Previous year *LTDTAR*
Change in Debt Leverage (*ΔDL_{i,t}*)	(Current year *DTER* - Previous year *DTER*)/Previous year *DTER*
Independent (explanatory) Variables	Measurement
Change in Promoter Ownership (*ΔPO_{i,t}*)	(Current year *PO* - Previous year *PO*)/Previous year *PO*
Control Variables	Measurement
Change in Sales Growth (*ΔSG_{i,t}*)	(Current year sales - Previous year sales)/Previous year sales
Change in Firm Size (*ΔFS_{i,t}*)	(Current year *FS* - Previous year *FS*)/Previous year *FS*
Change in Net Profit Margin (*ΔNPM_{i,t}*)	(Current year *NPM* - Previous year *NPM*)/Previous year *NPM*
Industry (*INDUSTRY_{i,t}*)	Assigned 1 for manufacturing industry and 0 for service industry

Notes:
- FL = LTDTAR (long-term debt to total asset ratio) = Long-term debt/total assets
- DL = DTER (debt to equity ratio) = Total debt/total equity
- Firm size = Natural log (ln) of average assets
- Net profit margin = Net income after tax/revenue

3.3 Data collection

A database was built from a selection of 500 financial reports from Top 500 Publicly Traded Companies listed on the Bombay Stock Exchange (BSE) between January 1, 2010 and December 31, 2014 to collect a sample of Indian firms. Out of approximately 500 financial reports announced by Top 500 Publicly Traded Companies between January 1, 2010 and December 31, 2014, only 322 financial reports were usable. Cross sectional yearly data was used in this study. Thus, 322 financial reports resulted in 1,610 total observations.

3.4 Descriptive statistics

Table 2 reports descriptive statistics of the collected variables. The explanation on descriptive statistics is as follows:

- Financial leverage: $\Delta FL12 = 6\%$; $\Delta FL13 = -1\%$; $\Delta FL14 = -5\%$.
- Debt leverage: $\Delta DL12 = 12\%$; $\Delta DL13 = 3\%$; $\Delta DL14 = 2\%$.
- Promoter ownership: $\Delta PO11 = -1\%$; $\Delta PO12 = 1\%$; $\Delta PO13 = -1\%$.
- Sales growth: $\Delta SG11 = 20\%$; $\Delta SG12 = 21\%$; $\Delta SG13 = 15\%$.
- Firm size: $\Delta FS11 = 19\%$; $\Delta FS12 = 16\%$; $\Delta FS13 = 14\%$.
- Net profit margin: $\Delta NPM11 = -5\%$; $\Delta NPM12 = -10\%$; $\Delta NPM13 = -5\%$.
- Industry: 0.53.

Table 2. Descriptive statistics

	Minimum	*Maximum*	*Mean*	*Std. Deviation*
ΔFL12	-0.94	1.88	0.06	0.40
ΔFL13	-0.98	1.68	-0.01	0.36
ΔFL14	-0.99	1.94	-0.05	0.33
ΔDL12	-0.85	3.25	0.12	0.48
ΔDL13	-0.97	2.14	0.03	0.38
ΔDL14	-0.98	2.53	0.02	0.42
ΔPO11	-0.86	0.86	-0.01	0.11
ΔPO12	-0.73	0.67	0.01	0.09
ΔPO13	-0.59	0.52	-0.01	0.08
ΔSG11	-0.75	1.64	0.20	0.28
ΔSG12	-0.78	1.98	0.21	0.28
ΔSG13	-0.81	1.34	0.15	0.27
ΔFS11	-0.98	1.41	0.19	0.22
ΔFS12	-0.40	0.94	0.16	0.16
ΔFS13	-0.94	1.24	0.14	0.19
ΔNPM11	-0.97	0.95	-0.05	0.34
ΔNPM12	-0.97	0.98	-0.10	0.33
ΔNPM13	-0.98	0.92	-0.05	0.35
INDUSTRY	0	1	0.53	0.50

Notes: Variables include changes in financial leverage (*ΔFL*), debt leverage (*ΔDL*), promoter ownership (*ΔPO*), sales growth (*ΔSG*), firm size (*ΔFS*), net profit margin (*ΔNPM*), and industry (INDUSTRY).

3.5 *Pearson bivariate correlation analysis*

The correlation coefficient matrix exhibits negative and significant correlations between *ΔFL12* and *ΔPO11*, *ΔFL13* and *ΔPO12*, and *ΔFL14* and *ΔPO13* ($\rho_{\Delta PO11,\ \Delta FL12}$ = -0.119, $\rho_{\Delta PO12,\ \Delta FL13}$ = -0.125, and $\rho_{\Delta PO13,\ \Delta FL14}$ = -0.135 respectively, all significant at the five percent level), implying that change in promoter ownership changes financial leverage of the Indian

firms. The correlation coefficient matrix also exhibits negative and significant correlations between *ΔDL12* and *ΔPO11*, *ΔDL13* and *ΔPO12*, and *ΔDL14* and *ΔPO13* ($\rho_{\Delta PO11,\ \Delta DL12}$ = -0.130, $\rho_{\Delta PO12,\ \Delta DL13}$ = -0.117, and $\rho_{\Delta PO13,\ \Delta DL14}$ = -0.142 respectively, all significant at the five percent level), implying that change in promoter ownership changes debt leverage of the Indian firms (see Table 3).

Table 3. Correlation Coefficient

Variables	ΔFL12	ΔDL12	ΔPO11	ΔSG11	ΔFS11	ΔNPM11	INDUSTRY
ΔFL12	1						
ΔDL12	0.542***	1					
ΔPO11	-0.119**	-0.130**	1				
ΔSG11	0.073	-0.030	0.088	1			
ΔFS11	-0.044	-0.057	0.004	0.321***	1		
ΔNPM11	-0.044	0.041	-0.104	-0.024	0.036	1	
INDUSTRY	-0.047	-0.068	0.039	0.035	0.060	-0.016	1

Variables	ΔFL13	ΔDL13	ΔPO12	ΔSG12	ΔFS12	ΔNPM12	INDUSTRY
ΔFL13	1						
ΔDL13	0.732***	1					
ΔPO12	-0.125**	-0.117**	1				
ΔSG12	-0.014	-0.144***	-0.063	1			
ΔFS12	-0.015	0.000	-0.043	0.252***	1		
ΔNPM12	-0.048	-0.012	-0.027	-0.169***	-0.030	1	
INDUSTRY	-0.055	0.007	0.117*	0.035	0.077	-0.054	1

Variables	ΔFL14	ΔDL14	ΔPO13	ΔSG13	ΔFS13	ΔNPM13	INDUSTRY
ΔFL14	1						
ΔDL14	0.602***	1					
ΔPO13	-0.135**	-0.142**	1				
ΔSG13	-0.059	0.005	0.049	1			
ΔFS13	-0.024	0.058	-0.133**	0.276***	1		
ΔNPM13	-0.083	-0.086	0.078	-0.062	0.015	1	
INDUSTRY	0.058	0.025	0.108	0.000	0.018	0.007	1

Notes: Variables include changes in financial leverage (*ΔFL*), debt leverage (*ΔDL*), promoter ownership (*ΔPO*), sales growth (*ΔSG*), firm size (*ΔFS*), net profit margin (*ΔNPM),* and industry (INDUSTRY). ***, ** and * imply significance of each mean difference at the 1%, 5%, and 10% level, respectively.

4 Analysis and discussion

In this section, we present the empirical findings on the relationship between promoter ownership and corporate leverage of the Indian service and manufacturing firms. There was possibility of endogeneity issues because we used ordinary least square (OLS) multiple regression analysis. The issues of endogeneity also occur if certain variables are omitted and there are measurement errors. To minimize endogeneity issues, the most important variables that affect financial leverage and debt leverage were used.

4.1 *Promoter ownership, financial leverage, and debt leverage*

Table 4 reports the estimated coefficients of Equation

used in this study. Negative relationships between:

● *ΔPO11* and *ΔFL12, ΔPO12* and *ΔFL13,* and *ΔPO13* and *ΔFL14* indicate that changes in promoter ownership reduce financial leverage of Indian firms.

● *ΔPO11* and *ΔDL12, ΔPO12* and *ΔDL13,* and *ΔPO13* and *ΔDL14* indicate that changes in promoter ownership reduce debt leverage of Indian firms.

● *ΔSG12* and *ΔDL13* indicate that changes in sales growth decreases debt leverage of Indian firms.

Positive relationships between *ΔSG11* and *ΔFL12* indicate that changes in sales growth increases financial leverage of Indian firms.

Table 4. Results from entire sample regression - promoter ownership, financial leverage, and debt leverage

Variables	ΔFL12	ΔFL12	ΔFL13	ΔFL13	ΔFL14	ΔFL14	ΔDL12	ΔDL12	ΔDL13	ΔDL13	ΔDL14	ΔDL14
ΔPO11	-0.406**	-0.451**	-	-	-	-	-0.536**	-0.513**	-	-	-	-
	(-2.14)	(-2.36)	-	-	-	-	(-2.34)	(-2.21)	-	-	-	-
ΔSG11	-	0.155*	-	-	-	-	-	0.002	-	-	-	-
	-	(1.85)	-	-	-	-	-	(0.02)	-	-	-	-
ΔFS11	-	-0.136	-	-	-	-	-	-0.121	-	-	-	-
	-	(-1.27)	-	-	-	-	-	(-0.93)	-	-	-	-
ΔNPM11	-	-0.061	-	-	-	-	-	0.041	-	-	-	-
	-	(-0.95)	-	-	-	-	-	(0.53)	-	-	-	-
INDUSTRY	-	-0.033	-	-	-	-	-	-0.057	-	-	-	-
	-	-0.76	-	-	-	-	-	(-1.07)	-	-	-	-
ΔPO12	-	-	-0.512**	-0.507**				-	-0.498**	-0.553**	-	-
	-	-	(-2.26)	(-2.21)	-	-	-	-	(-2.11)	(-2.33)	-	-
ΔSG12	-	-	-	-0.036	-	-	-	-	-	0.228**	-	-
	-	-	-	(-0.47)	-	-	-	-	-	(-2.92)	-	-
ΔFS12	-	-	-	-0.027	-	-	-	-	-	0.079	-	-
	-	-	-	(-0.21)	-	-	-	-	-	(0.59)	-	-
ΔNPM12	-	-	-	-0.064	-	-	-	-	-	-0.048	-	-
	-	-	-	(-1.04)	-	-	-	-	-	(-0.75)	-	-
INDUSTRY	-	-	-	-0.030	-	-	-	-	-	0.018	-	-
	-	-	-	(-0.74)	-	-	-	-	-	(0.41)	-	-
ΔPO13	-	-	-	-	0.541**	0.355**				-	0.720**	0.682**
	-	-	-	-	(-2.43)	(-2.44)	-	-	-	-	(-2.57)	(-2.37)
ΔSG13	-	-	-	-	-	-0.060	-	-	-	-	-	-0.008
	-	-	-	-	-	(-0.85)	-	-	-	-	-	(-0.09)
ΔFS13	-	-	-	-	-	-0.051	-	-	-	-	-	0.091
	-	-	-	-	-	(-0.50)	-	-	-	-	-	(0.71)
ΔNPM13	-	-	-	-	-	-0.073	-	-	-	-	-	-0.093
	-	-	-	-	-	(-1.36)	-	-	-	-	-	(-1.38)
INDUSTRY	-	-	-	-	-	-0.049	-	-	-	-	-	0.033
	-	-	-	-	-	(-1.32)	-	-	-	-	-	(0.70)
Constant	0.063**	0.072*	-0.006	0.015	-0.050**	0.065**	0.123***	1.78***	0.029	0.050	0.016	-0.018
	(2.85)	(1.88)	(-0.30)	(0.43)	(-2.74)	(2.10)	(4.63)	(3.83)	(1.39)	(1.34)	(0.67)	(-0.47)
Obs	322	322	322	322	322	322	322	322	322	322	322	322
χ²-test	4.57**	2.03*	5.11**	1.37	5.92**	2.14*	5.47**	1.59	4.43**	2.65	6.59**	1.89*
R²	0.014	0.031	0.016	0.021	0.018	0.033	0.017	0.024	0.014	0.040	0.020	0.029
Adjusted R²	0.011	0.016	0.013	0.006	0.015	0.017	0.014	0.009	0.011	0.025	0.017	0.014

Notes: In the Ordinary Least Square Regression (OLS) models, the dependent variables are changes in financial leverage (*ΔFL*) and debt leverage (*ΔDL*). Independent variable is changes in promoter ownership (*ΔPO*) and control variables include changes in sales growth (*ΔSG*), firm size (*ΔFS*), net profit margin (*ΔNPM*), and industry (INDUSTRY). ***, ** and * imply significance of each mean difference at the 1%, 5%, and 10% level, respectively.

4.2 Promoter ownership, financial leverage, and debt leverage in service industry

Table 5 reports the estimated coefficients of Equations 1 and 2. Negative relationships between:
- *ΔPO11* and *ΔFL12, ΔPO12* and *ΔFL13,* and *ΔPO13* and *ΔFL14* indicate that changes in promoter ownership reduce financial leverage of Indian service firms.
- *ΔPO11* and *ΔDL12* and *ΔPO13* and *ΔDL14* indicate that changes in promoter ownership reduce debt leverage of Indian service firms.
- *ΔSG12* and *ΔDL13* indicate that changes in sales growth decreases debt leverage of Indian service firms.

4.3 Promoter ownership, financial leverage, and debt leverage in manufacturing industry

Table 6 reports the estimated coefficients of Equations 1 and 2. Negative relationships between:

- *ΔPO12* and *ΔDL13* indicate that changes in promoter ownership reduce debt leverage of Indian production firms.
- *ΔSG12* and *ΔFL13 and ΔSG13* and *ΔFL14* indicate that changes in sales growth decreases financial leverage of Indian manufacturing firms.
- *ΔSG12* and *ΔDL13 and ΔSG13* and *ΔDL14* indicate that changes in sales growth decreases debt leverage of Indian manufacturing firms.
- *ΔNPM13* and *ΔFL14* indicate that changes in net profit margin decreases financial leverage of Indian manufacturing firms.
- *ΔNPM13* and *ΔDL14* indicate that changes in net profit margin decreases debt leverage of Indian manufacturing firms.

Positive relationships between:
- *ΔPO13* and *ΔFL14* indicate that changes in promoter ownership increase financial leverage of Indian production firms.
- *ΔFS13* and *ΔDL14* indicate that changes in firm size increase debt leverage of Indian production firms.

Table 5. Results from service industry sample - promoter ownership, financial leverage, and debt leverage

Variables	ΔFL12	ΔFL12	ΔFL13	ΔFL13	ΔFL14	ΔFL14	ΔDL12	ΔDL12	ΔDL13	ΔDL13	ΔDL14	ΔDL14
ΔPO11	-0.586**	-0.629**	-	-	-	-	-0.758**	-0.678*	-	-	-	-
	(-2.04)	(-2.15)	-	-	-	-	(-2.09)	(-1.83)	-	-	-	-
ΔSG11	-	0.213*	-	-	-	-	-	0.067	-	-	-	-
	-	(1.76)	-	-	-	-	-	(0.44)	-	-	-	-
ΔFS11	-	-0.258	-	-	-	-	-	-0.369	-	-	-	-
	-	(-1.44)	-	-	-	-	-	(-1.63)	-	-	-	-
ΔNPM11	-	-0.051	-	-	-	-	-	0.067	-	-	-	-
	-	(-0.46)	-	-	-	-	-	(0.48)	-	-	-	-
ΔPO12	-	-	-0.535*	-0.522*	-	-	-	-	-0.369	-0.403	-	-
	-	-	(-1.81)	(-1.75)	-	-	-	-	(-1.28)	(-1.40)	-	-
ΔSG12	-	-	-	0.081	-	-	-	-	-	0.190*	-	-
	-	-	-	(0.74)	-	-	-	-	-	(-1.79)	-	-
ΔFS12	-	-	-	-0.115	-	-	-	-	-	0.011	-	-
	-	-	-	(-0.55)	-	-	-	-	-	(0.05)	-	-
ΔNPM12	-	-	-	-0.015	-	-	-	-	-	-0.052	-	-
	-	-	-	(-0.15)	-	-	-	-	-	(-0.55)	-	-
ΔPO13	-	-	-	-	1.272***	1.362***	-	-	-	-	1.110**	1.200**
	-	-	-	-	(-4.26)	(-4.46)	-	-	-	-	(-2.81)	(-2.96)
ΔSG13	-	-	-	-	-	0.015	-	-	-	-	-	0.099
	-	-	-	-	-	(0.16)	-	-	-	-	-	(0.82)
ΔFS13	-	-	-	-	-	-0.168	-	-	-	-	-	-0.177
	-	-	-	-	-	(-1.31)	-	-	-	-	-	(-1.04)
ΔNPM13	-	-	-	-	-	0.060	-	-	-	-	-	0.040
	-	-	-	-	-	(0.77)	-	-	-	-	-	(0.39)
Constant	0.080**	0.081	0.009	0.009	-0.085**	-0.062*	0.154**	2.09**	0.022	0.054	0.007	0.003
	(2.12)	(1.64)	(0.28)	(0.19)	(-3.03)	(1.84)	(3.25)	(3.33)	(0.67)	(1.19)	(0.19)	(0.07)
Obs	150	150	150	150	150	150	150	150	150	150	150	150
χ²-test	4.16**	2.13*	3.28*	1.02	18.13***	5.09**	4.37**	1.80	1.65	1.26	7.87**	2.32*
R²	0.027	0.056	0.022	0.027	0.109	0.123	0.029	0.047	0.011	0.034	0.051	0.060
Adjusted R²	0.021	0.030	0.015	0.000	0.103	0.099	0.022	0.021	0.004	0.007	0.044	0.034

Notes: In the Ordinary Least Square Regression (OLS) models, the dependent variables are changes in financial leverage (ΔFL) and debt leverage (ΔDL). Independent variable is changes in promoter ownership (ΔPO) and control variables include changes in sales growth (ΔSG), firm size (ΔFS), and net profit margin (ΔNPM). ***, ** and * imply significance of each mean difference at the 1%, 5%, and 10% level, respectively.

Table 6. Results from manufacturing industry sample – promoter ownership, financial leverage, and debt leverage

Variables	ΔFL12	ΔFL12	ΔFL13	ΔFL13	ΔFL14	ΔFL14	ΔDL12	ΔDL12	ΔDL13	ΔDL13	ΔDL14	ΔDL14
ΔPO11	-0.130	-0.137	-	-	-	-	-0.188	-0.144	-	-	-	-
	(-0.52)	(-0.54)	-	-	-	-	(-0.69)	(-0.52)	-	-	-	-
ΔSG11	-	0.077	-	-	-	-	-	-0.057	-	-	-	-
	-	(0.64)	-	-	-	-	-	(-0.43)	-	-	-	-
ΔFS11	-	0.012	-	-	-	-	-	0.150	-	-	-	-
	-	(0.09)	-	-	-	-	-	(1.07)	-	-	-	-
ΔNPM11	-	-0.074	-	-	-	-	-	0.008	-	-	-	-
	-	(-0.99)	-	-	-	-	-	(0.10)	-	-	-	-
ΔPO12	-	-	-0.554	-0.431	-	-	-	-	-0.952**	-1.012**	-	-
	-	-	(-0.87)	(-1.05)	-	-	-	-	(-2.05)	(-2.17)	-	-
ΔSG12	-	-	-	-0.229**	-	-	-	-	-	-0.303**	-	-
	-	-	-	(-2.05)	-	-	-	-	-	(-2.39)	-	-
ΔFS12	-	-	-	0.075	-	-	-	-	-	0.133	-	-
	-	-	-	(0.48)	-	-	-	-	-	(0.74)	-	-
ΔNPM12	-	-	-	-0.075	-	-	-	-	-	-0.038	-	-
	-	-	-	(-0.97)	-	-	-	-	-	(-0.44)	-	-
ΔPO13	-	-	-	-	0.454	0.646**	-	-	-	-	-0.202	0.071
	-	-	-	-	(1.39)	(2.01)	-	-	-	-	(-0.50)	(0.18)
ΔSG13	-	-	-	-	-	-0.238**	-	-	-	-	-	-0.245*
	-	-	-	-	-	(-2.18)	-	-	-	-	-	(-1.82)
ΔFS13	-	-	-	-	-	0.145	-	-	-	-	-	0.623**
	-	-	-	-	-	(0.91)	-	-	-	-	-	(3.16)
ΔNPM13	-	-	-	-	-	-0.221**	-	-	-	-	-	-0.247**
	-	-	-	-	-	(-3.19)	-	-	-	-	-	(2.89)
Constant	0.046*	0.024	-0.022	0.008	-0.034	-0.031	0.094**	0.076*	0.042	0.082*	0.028	-0.038
	(1.85)	(0.59)	(-0.88)	(0.18)	(-1.44)	(-0.95)	(3.39)	(1.72)	(1.50)	(1.74)	(0.96)	(-0.93)
Obs	322	172	172	172	172	172	172	172	172	172	172	172
χ²-test	0.274	0.403	0.751	1.53	1.93	3.96**	0.472	0.412	4.21**	2.58**	0.246	4.46**
R²	0.002	0.010	0.004	0.035	0.011	0.087	0.003	0.010	0.024	0.058	0.001	0.096
Adjusted R²	-0.004	-0.014	-0.001	0.012	0.005	0.075	-0.003	-0.014	0.018	0.036	-0.004	0.075

Notes: In the Ordinary Least Square Regression (OLS) models, the dependent variables are changes in financial leverage (ΔFL) and debt leverage (ΔDL). Independent variable is changes in promoter ownership (ΔPO) and control variables include changes in sales growth (ΔSG), firm size (ΔFS), and net profit margin (ΔNPM). ***, ** and * imply significance of each mean difference at the 1%, 5%, and 10% level, respectively.

5 Conclusion

The present study found that promoter ownership and promoter control reduces both financial and debt leverage of Indian firms. This may be because the agency problem is low when promoters control firms. As described in the introductory section, a majority of the promoters belong to the same families, relatives, and in some cases, friends. The agency problem under the governance of promoters is low because a majority of the shareholders is from the same family and from relatives (Schulze et al., 2003). Thus, the findings lend some support to agency theory of Jensen and Meckling (1976) in that promoter ownership reduces financial and debt leverage of Indian firms. However, promoter ownership impacts more in the service industry than the manufacturing industry in reducing both the financial and debt of Indian firms.

5.1 Limitations

This study is limited to the sample of Indian service and manufacturing firms. This is a co-relational study that investigated the association between promoter ownership and the components of corporate leverage. There is not necessarily a causal relationship between the two. The findings of this study could only be generalized to firms similar to those that were included in this research. In addition, sample size is small.

5.2 Future research

Future study should be conducted on different countries to see if the findings support the findings of this study in other countries.

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